

REMARKS

The Office Action dated June 10, 2004 has been received and carefully noted. The above claim amendments and the following remarks are submitted as a full and complete response thereto. Applicants wish to thank the Examiner for his courtesy during the interview of August 8, 2004.

Pursuant to our conversation during the interview, claim 1 has been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added, and no new issues are raised which require further consideration or search. Claims 2 and 6 have been cancelled without prejudice. Claims 1, 3-5, and 7-10 are currently pending in the application and are respectfully submitted for consideration.

Claims 1-3, 5 and 7-10 were rejected under 35 U.S.C. §103(a) as being obvious over Ahne (U.S. Patent No. 6,133,844) in view of Naylor (U.S. Patent No. 5,506,767). The Office Action took the position that Ahne discloses all of the elements of claims 1-3, 5 and 7-10, with the exception of a drive operative to generate a control signal in response to the signal provided by a programmable controller and a plurality of ports for receiving data information from a programmable controller. The Office Action then relies on Naylor to cure these deficiencies in Ahne.

Claims 4 and 6 were rejected under 35 U.S.C. §103(a) as being obvious over Ahne in view of Naylor and in further view of Ross (U.S. Patent No. 5,027,112). The Office

Action took the position that Ahne teaches all of the elements of claims 4 and 6, with the exception of a driver comprising an array of tri-state devices and a display comprising an array of light emitting diodes arranged in a matrix. The Office Action then relies on Naylor and Ross to cure these deficiencies in Ahne.

The above rejections are respectfully traversed because the cited references fail to teach or suggest all of the elements of the pending claims.

Claim 1, upon which claims 3-5 are dependent, recites a programmable controller operative to determine the present system state of a system, the programmable controller providing a signal representative of system state, a driver operative to generate a control signal in response to the signal provided by the programmable controller, and a display device operative to provide a visual representation of the state of the system in response to the control signal. The display device further comprises an array of light emitting diodes, arranged in a matrix. The system has a plurality of ports, with at least one port of the plurality of ports providing at least one of the event signals, where the at least one event signal carries information on a status of the at least one port with respect to transmission and receipt of data by the at least one port. The programmable controller further comprises a register for storing programming information, a port for receiving event information, and a processor operative to generate the signal responsive of the system state in response to the event information and the programming information stored in the register.

Claim 7, upon which claim 8 is dependent, is directed to a method of operating a display system. The method includes providing event signals representative of a condition of a system to a programmable controller, generating signals representative of system state in response to the event signals, and displaying a visual representation of information representing system state in response to signals generated by the programmable controller. The system has a plurality of ports, with at least one port of the plurality of ports providing at least one of the event signals.

Claim 9, upon which claim 10 is dependent, is directed to a programmable display controller for controlling a display device based on event information indicative of a current one of a set of predefined states of a communication system. The programmable display controller includes a programmable controller responsive to programming information defining a selected display state associated with each of the states of the communication system, the programmable controller being operative to generate a control signal indicative of a current display state based on the current state of the communication system and said programming information. The communication system has a plurality of ports, with at least one port of the plurality of ports providing at least one of the event signals, where the at least one event signal carries information on a status of the at least one port with respect to transmission and receipt of data by the at least one port.

The present invention provides the ability to display event information from a variety of communication systems from different vendors. It is also less expensive to

implement than conventional systems requiring a microprocessor. Additionally, the claimed invention takes up less real estate than conventional systems. The claimed invention also may be implemented in a variety of communications systems.

Ahne, Naylor and Ross fail to provide the advantages and features discussed above, and therefore fail to anticipate or render the claimed invention obvious.

Ahne, the primary reference used in the rejection, is directed to a system and method for allowing a user to program characteristics of an LED in order to convey information about the operational status of a printer. The disclosure allows a user at a computer (20, Fig. 1) to program the LED (124-128) functions of the printer (10). The computer receives output status signals from the printer and transmits to an LED driver logic circuitry in the printer display mode information based upon how the computer has been programmed by the user.

Naylor, the secondary reference used in the rejection, is directed to a universal controller providing the display of information with a variety of pre-selected output graphics and indicia, programmability to control a variety of processes and machines in a variety of applications with a variety of pre-selected input graphics and indicia, manufacturability as a standard unit in large numbers, variable programming for its different applications, and containability in a small, easily operated unit.

Applicants respectfully submit that the combination of Ahne and Naylor fails to disclose a programmable controller as recited in present claim 1. The Office Action alleges that Ahne discloses a programmable controller as recited in the current claims.

Present claim 1 recites that the “programmable controller further comprises a register for storing programming information, **a port for receiving event information**, and a processor operative to generate the signal responsive of the system state in response to the event information and the programming information stored in the register.” The programmable controller disclosed in Ahne fails to disclose a port for receiving event information. The programmable controller of Ahne only comprises a memory and printer driver software (Ahne, Column 2, line 62 – Column 3, line 5). Ahne fails to disclose that the programmable controller includes a port for receiving event information. Naylor fails to cure this deficiency in Ahne. Consequently, the combination of Ahne and Naylor fails to disclose a programmable controller as recited in the present claims.

Additionally, the Office Action acknowledged that Ahne fails to disclose or suggest a plurality of ports for receiving data information from a programmable controller. Specifically, claim 1 recites, in part, “wherein the system has a plurality of ports, with at least one port of the plurality of ports providing at least one of the event signals, where the at least one event signal carries information on a status of the at least one port with respect to transmission and receipt of data by the at least one port.” Similar limitations are also found in independent claims 7 and 9. Applicants respectfully submit that Naylor also fails to disclose or suggest the above stated limitation.

Naylor does not disclose a plurality of ports where at least one event signal carries information on a status of at least one port. Rather, Naylor discloses that “a variable annunciation or display of information in a controller is obtained by providing a

controller with a variable area illumination means having a plurality of distributed independently illuminable areas” (Naylor, Column 1, Lines 44-48). None of the elements disclosed in Naylor correspond to the ports recited in the claimed invention.

The ports recited in the claimed invention provide event signals which carry information on the status of the port with respect to the transmission and receipt of data. Elements 11A-P disclosed in Figure 1 of Naylor, and cited in the Office Action, do not correspond to the ports recited in the claimed invention. 11A-P are merely a plurality of distributed independently illuminatable areas of variable illumination means 11 (Naylor, Column 3, lines 2-5). 11A-P do not provide event signals and do not transmit and receive data. Claim 1 clearly recites that the ports are network elements which **transmit and receive data**. 11A-P of Naylor do not transmit or receive data, and thus do not correspond to the ports recited in the claims of the current invention.

Rather, 11A-P appear to be merely display elements of Naylor and are not ports within the common meaning of the term. According to the Merriam-Webster dictionary, a port is a hardware interface by which a computer communicates with another device or system. This definition is consistent with that of the present specification, and therefore 11A-P are also not ports within the meaning used in the specification and claims of the instant invention. For instance, in a preferred embodiment of the claimed invention, “a first event signal 30 carrying information on the status of port 31 of the communication system 22 is processed with a second event signal 36 carrying different information regarding the state of port 31 using functions defined by the values stored in first register

28 and second register 40, and producing a signal 32 responsive to both first event signal 30 and second event signal 3. The event signals (30, 36, 38) determine the state (on, off, blink) of a corresponding one of the plurality of LED's of the display 16" (Specification, Page 5, lines 7-13). Neither Ahne nor Naylor disclose or suggest ports whose status information is carried in an event signal. Consequently, the combination of Ahne and Naylor, whether taken alone or in combination, fails to disclose a plurality of ports providing an event signal which carries information on the status of the ports, as recited in independent claims 1, 7 and 9.

Applicants note that claims 3-5 are dependent upon claim 1, claim 8 is dependent upon claim 7, and claim 10 is dependent upon claim 9. Therefore, Applicants submit that claims 3-5, 8, and 10 should be found allowable for at least their dependence upon claims 1, 7 and 9 respectively, and the specific limitations recited therein.

As a result, Applicants respectfully assert that Ahne and Naylor do not teach or suggest all of the elements of claims 1, 3, 5 and 7-9, as has been asserted in the Office Action. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claims 1-3, 5 and 7-9.

Claims 4 and 6 were rejected under 35 U.S.C. §103(a) as being obvious over Ahne in view of Naylor and in further view of Ross. Applicants note that claim 6 has been cancelled, and that claim 4 is dependent upon claim 1. In the Office Action, Ross was relied upon for its alleged teaching of a display system having a display area defined by an array of LEDs which form a matrix. However, Ross still fails to cure the deficiencies

of Ahne and Naylor discussed above. Thus, Applicants respectfully assert that the combination of Ahne, Naylor and Ross cannot render claim 4 obvious. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claim 4.

To conclude, Applicants respectfully submit that Ahne, Naylor and Ross, whether taken singly or in combination, fail to disclose or suggest critical and important elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1, 3-5 and 7-10 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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